# Winning at the NIH:
## Swimming with the Sharks

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**hunzikerr@mail.nih.gov**

# Five Take Aways

- ✓ The NIH is not one organization, but 27 individual fiefdoms, each with a culture and set of practices. Find your niche.
- ✓ In tight budget times, folks hunker down. Conservatism rules, but reviewers and staff are eager to be "wowed".
- ✓ NIH has many ways to support your science (e.g. types of grants) and many portals to access that support (e.g. FOAs).
- ✓ Evaluations and scores drive selection processes, but human beings make decisions. Program Directors (and others) can help you understand the system and present your ideas in the best light.
- ✓ Check web sites to get started. Do some homework before firing off an e-mail or picking up the phone.

# TODAY'S TOPICS

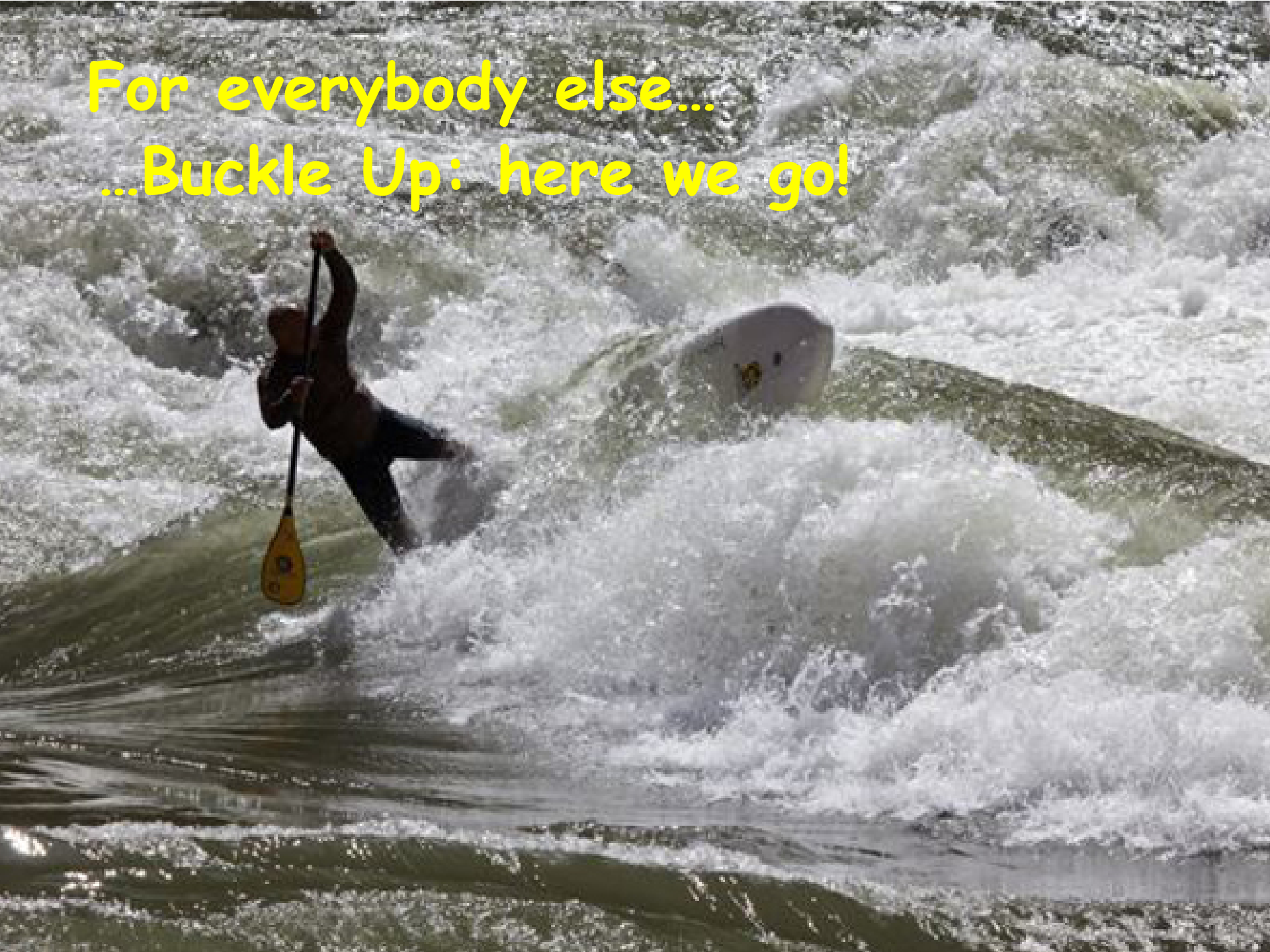
- **Understanding the NIH Culture**
  - The Perfect Application
  - NIH and Federally Supported Science
  - Resource Allocation
- **News You Can Use**
  - It's All (well, mostly) About Grants
  - Award Mechanisms and Activity Codes
  - NIH Priorities Drive New Initiatives
- **Resources**
  - Is NIH interested in my science?
  - Finding the Best Review Committee
  - The Right Help at the Right Time

# Understand the NIH Culture

- The Perfect Application
- NIH and Federally Supported Science
- Resource Allocation

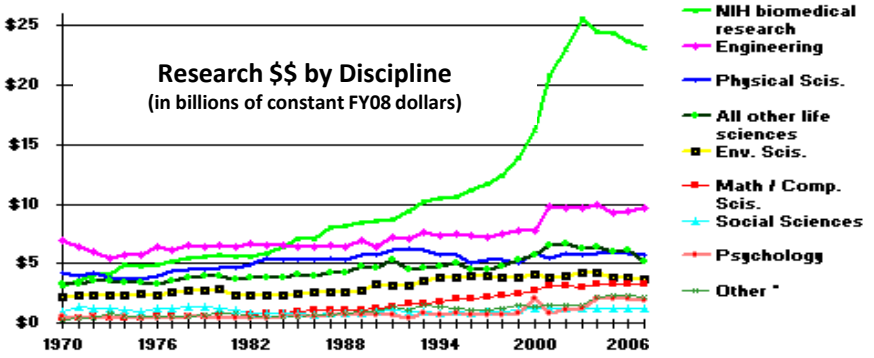
# I don't need help if I have…

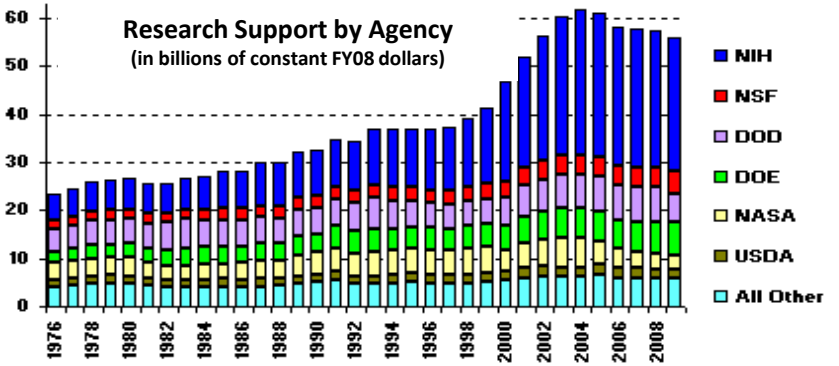
- ✓A great idea to solve a significant biomedical problem
- ✓An innovative solution
- ✓The tools to get the job done
  - – right team
  - – right resources
  - – enough data to support feasibility
- ✓Outlined the path to get there
- ✓A compelling application written to the instructions
  - – following the format
  - – including all administrative requirements
- ✓Successfully posted the application through grants.gov


For everybody else…
…Buckle Up: here we go!

# Federal Agencies in Science and Technology have different

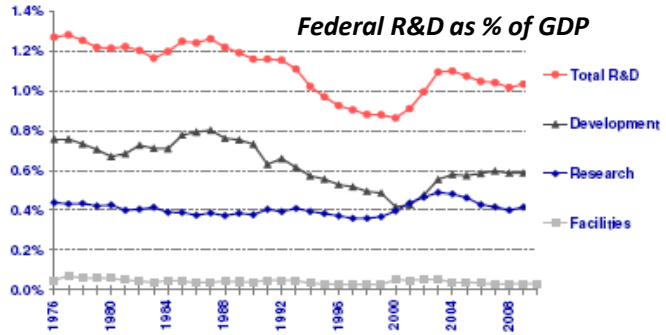
- ✓ missions
- ✓ cultures
- ✓ rules
- ✓ levels of support
- ✓ expectations

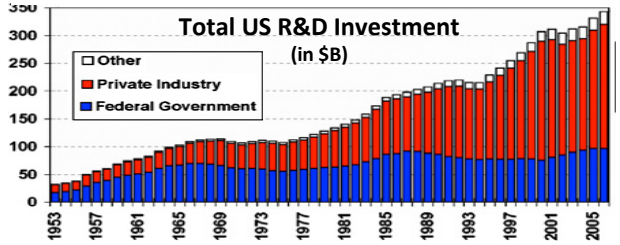



## But the same overall goal

- ✓ protect the security, health, and well being of Americans
- ✓ maintain knowledge and application superiority
- ✓ fuel the engine of US economic growth




Source: AAAS http://www.aaas.org/spp/rd/aboutrd.htm

**NIH** is the nation's medical research agency -- supporting scientific studies that turn discovery into health.

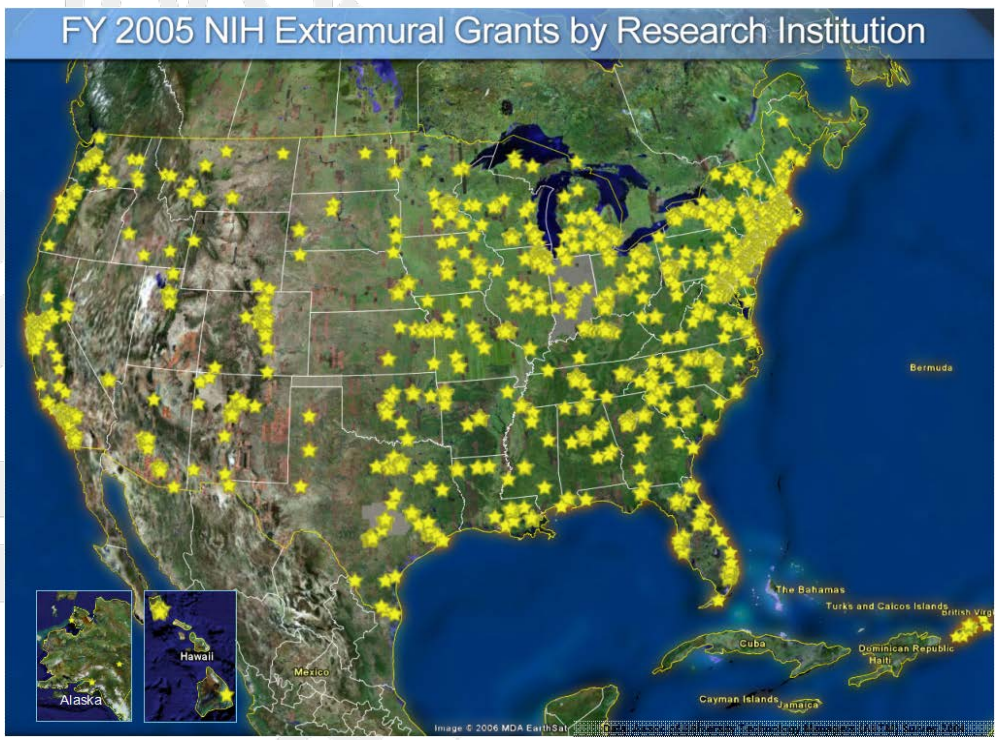
# The Broad Reach of the NIH

**NIH *is* an institution**

**(Intramural Research)**

**~ 6,000 scientists**

**~ 10% of NIH budget**




**NIH *supports* institutions & people**

**(Extramural Research)**

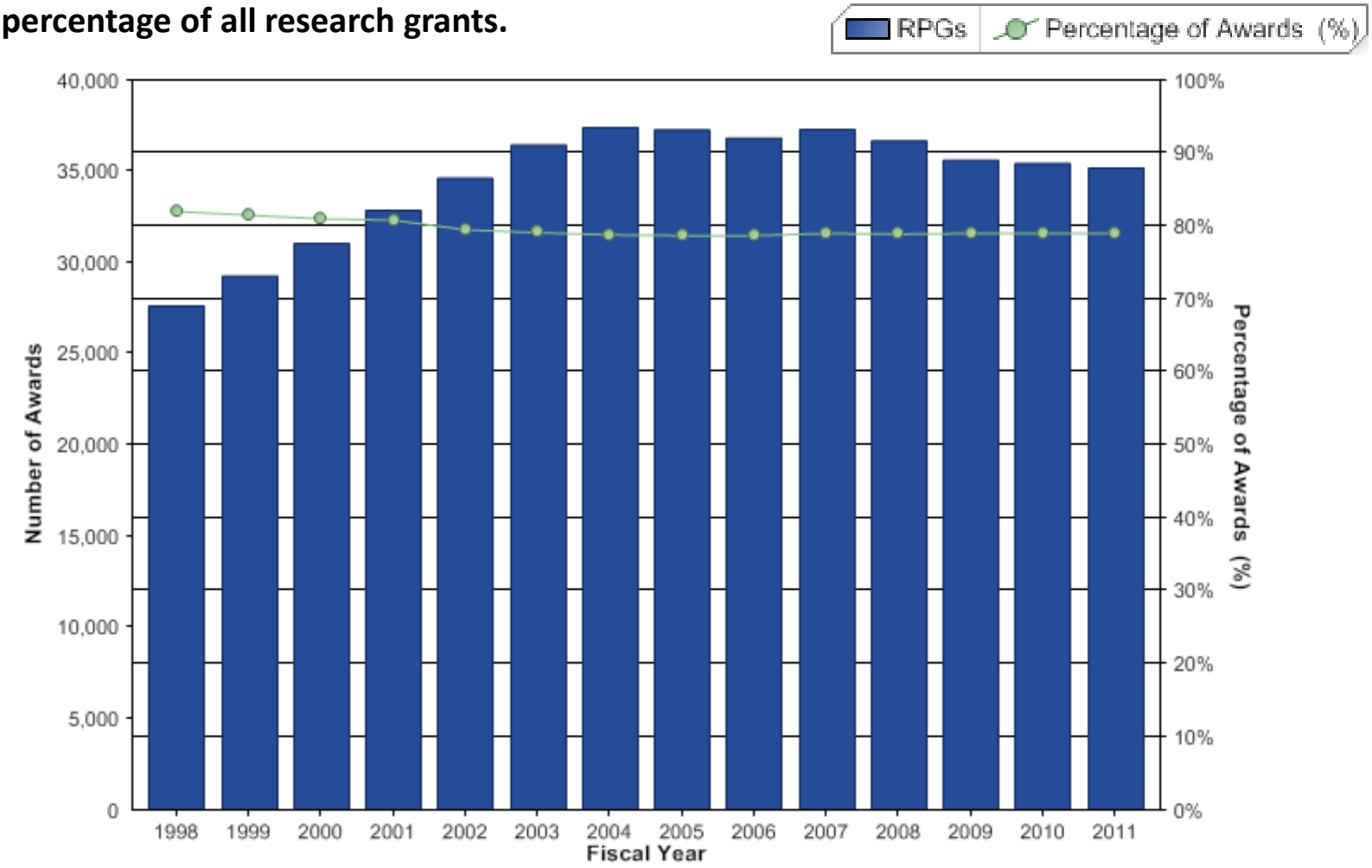
**> 4,000 institutions**

**> 300,000 scientists & research personnel**

**~ 85% of the NIH budget**

# Research Project Grants (RPGs): The Mainstay of NIH Sponsored Research

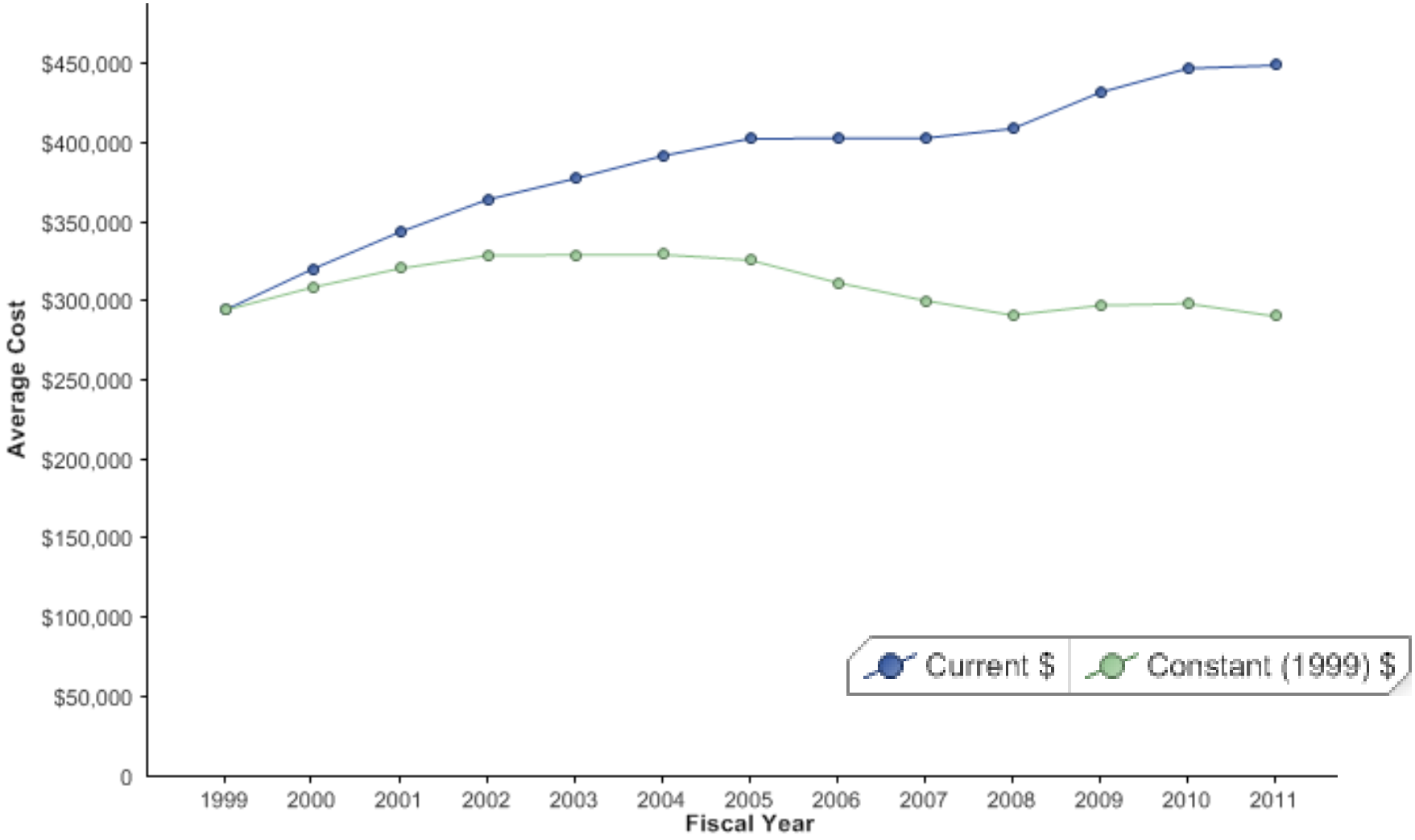
**Awards as percentage of all research grants.**




**Research Project Grants (RPGs) include R00, R01, R03, R15, R21, R22, R23, R29, R33, R34, R35, R36, R37, R55, R56, RL1, RL5, RL9, P01, P42, PN1, UC1, UC7, U01, U19, U34, DP1, DP2, RL1, RL2, RL5, RL9.**

**More info available at: [http://www.report.nih.gov](http://www.report.nih.gov)**

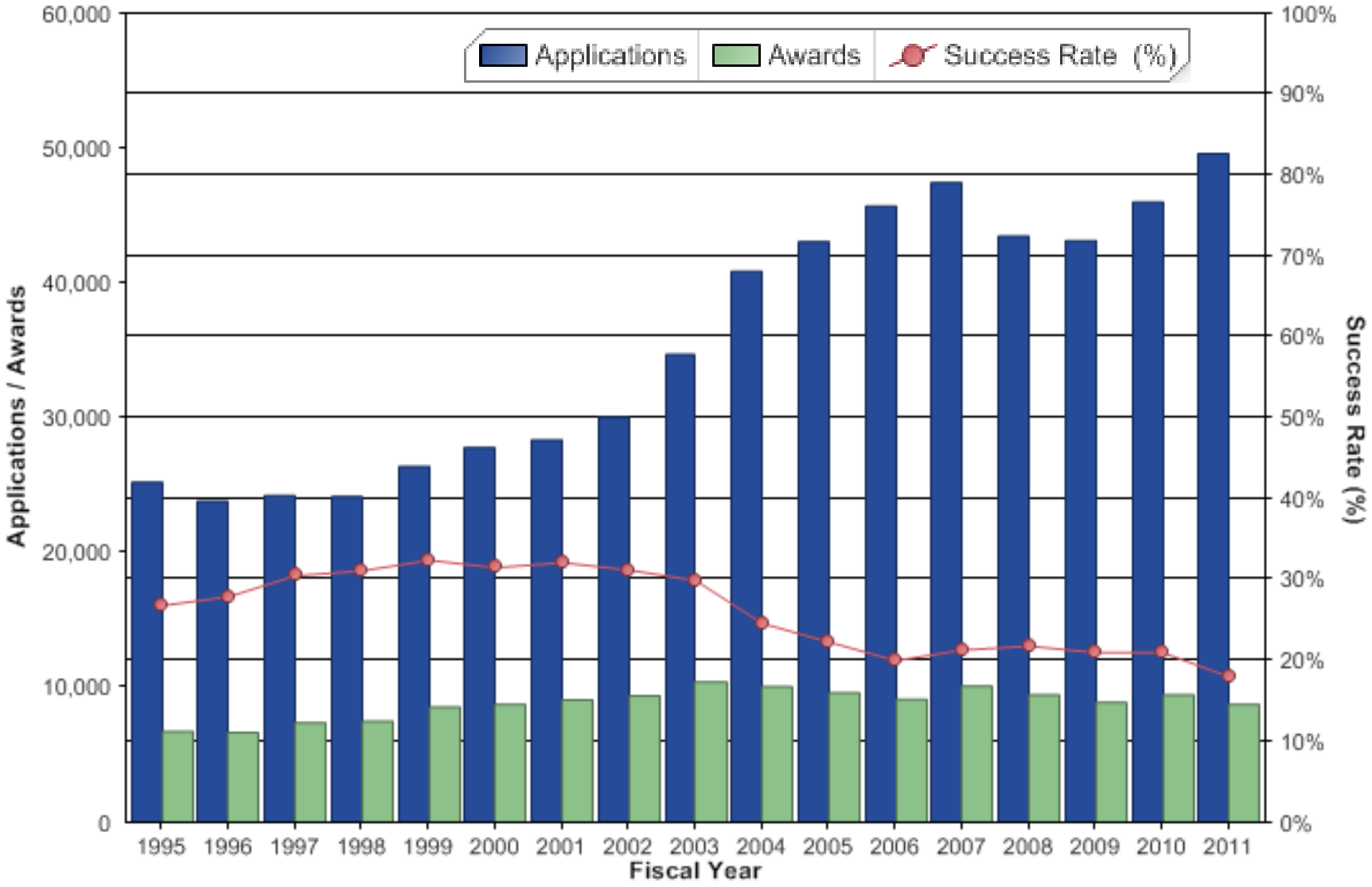
# Research Project Grants (RPGs) Size




•Research Project Grants (RPGs) include R00, R01, R03, R15, R21, R22, R23, R29, R33, R34, R35, R36, R37, R55, R56, RL1, RL5, RL9, P01, P42, PN1, UC1, UC7, U01, U19, U34, DP1, DP2, RL1, RL2, RL5, RL9.

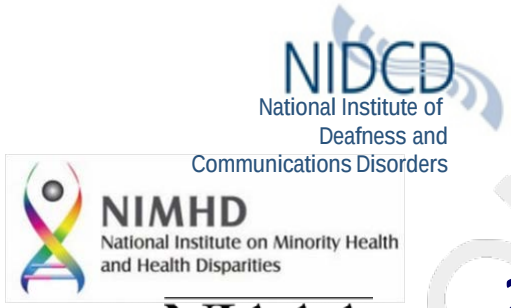
More info available at: http://www.report.nih.gov

# Applications, Awards, Success Rates




**More info available at: [http://report.nih.gov/success_rates/index.aspx](http://report.nih.gov/success_rates/index.aspx)**

# NIH is organized into:



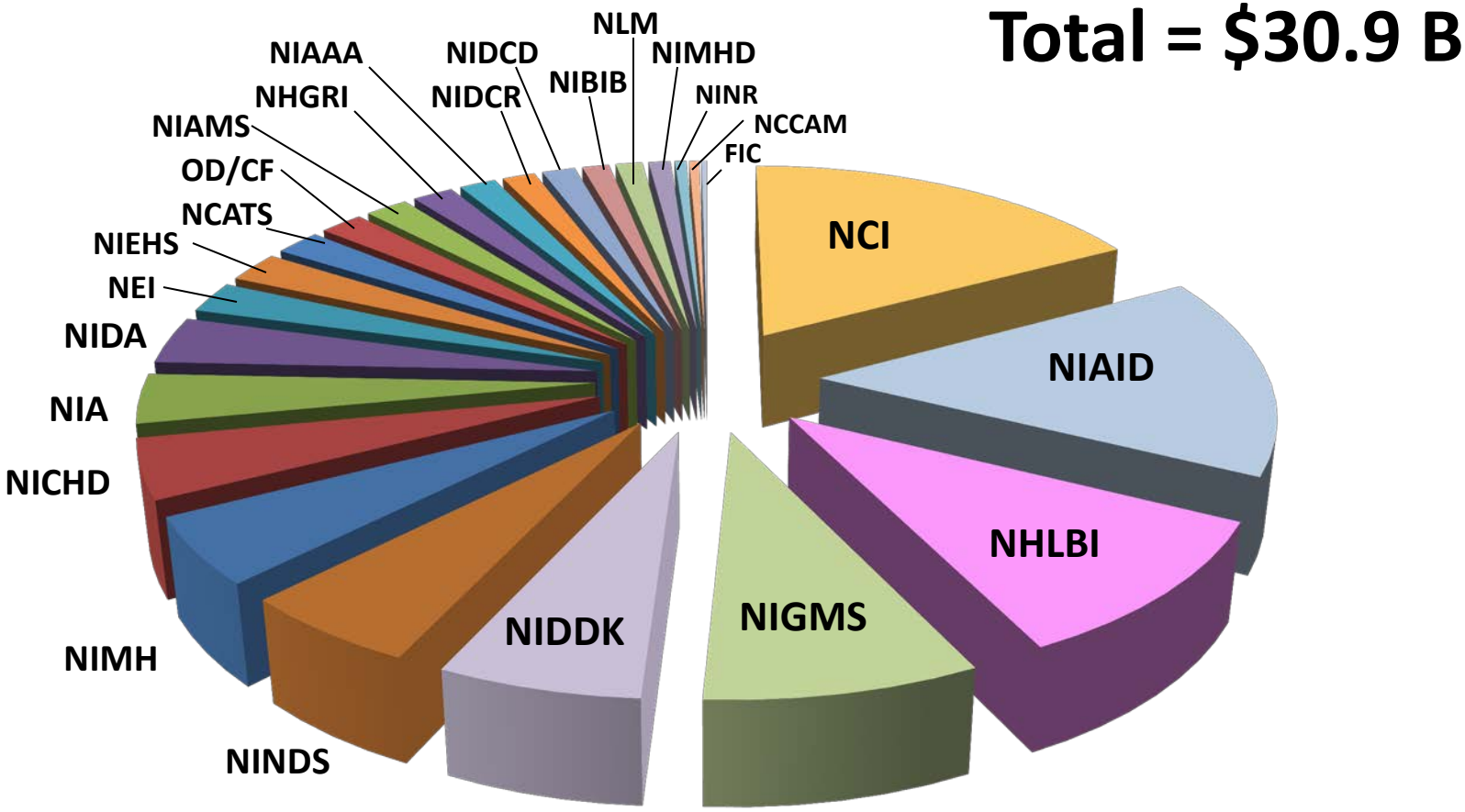
**27 Institutes & Centers (IC) each with different:**

- **missions and priorities**
- **budgets**
- **ways of deciding which grants to fund**

**NIAMS**
National Institute of Arthritis and Musculoskeletal and Skin Diseases

# NIH FY12 Budget

NIH Divides most of its investment according to the interests of the component parts (i.e. Institutes or Centers), with <4%) allocated to trans-NIH initiatives.




**About 85% distributed via Extramural grants, contracts, cooperative agreements**

# NIH Grant Statistics

## Fiscal Year 2010

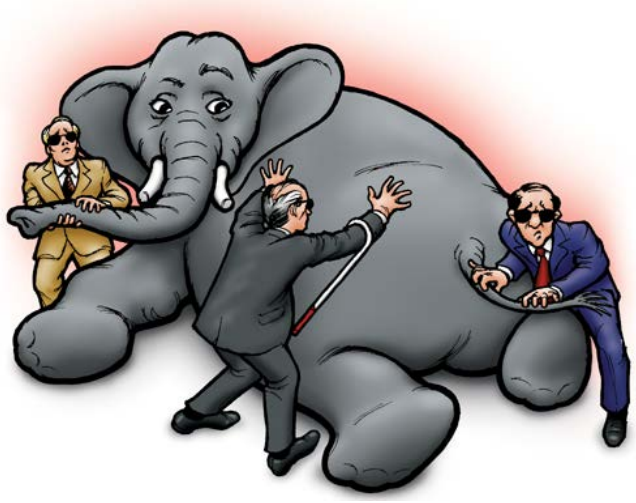
- 88,000 applications received; 62,000 reviewed
- 240 Review Officers organized 1,600 meetings with 18,000 reviewers
- 16,600+ new research grants awarded

## Some Outcomes

NIH-funded research has produced

- 70% of major drugs
- 80% of Nobel Prizes

# NIH's support for biomedical research is…



- highly complex
- confusing
- difficult to navigate
- often frustrating
- unpredictable

- robust
- flexible
- broad
- timely
- reliable

# News You Can Use

- It's All (well, mostly) About Grants
- Award Mechanisms and Activity Codes
- NIH Priorities Drive New Initiatives

# What's the Difference Between Grants and Contracts?

| GRANT | | CONTRACT |
|---|---|---|
| • Assistance | $ | • Acquisition |
| • Government is Patron or Partner | $ | • Government is Purchaser |
| • Purpose: support and stimulate research | $ | • Purpose: acquire goods or services |
| • Benefit a public purpose | $ | • Benefit and use of the government |
| • Investigator initiated | $ | • Government initiated |

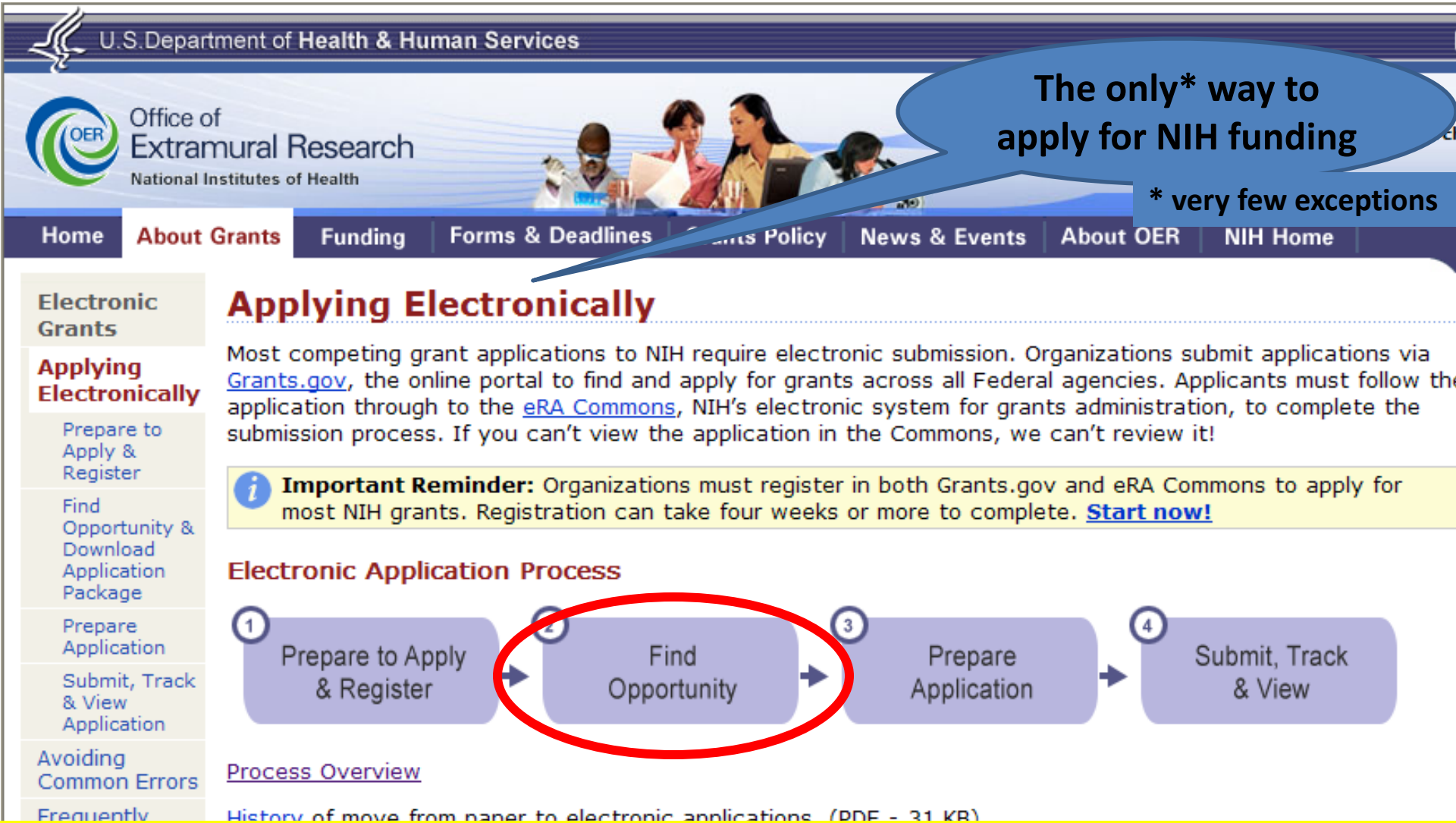
# How Does NIH Solicit Applications?

- **Federal Opportunity Announcements (FOA) published through**
  - **the NIH Guide (http://grants.nih.gov/grants/guide/)**
  - **grants.gov**
- **Parent Announcements cover basic activity codes**
  - **investigator-initiated applications**
- **Special Opportunities to fill gaps**
  - **Requests for Applications (RFA), a one-time call with set aside funds**
  - **Program Announcement (PA) highlights areas of focus**
  - **Program Announcement with Special Review (PAR) for special consideration and "protected" review**
  - **Program Announcement with Set Aside (PAS) essentially, an RFA with multiple receipt dates**

# All Grant Solicitations are Listed in the NIH Guide

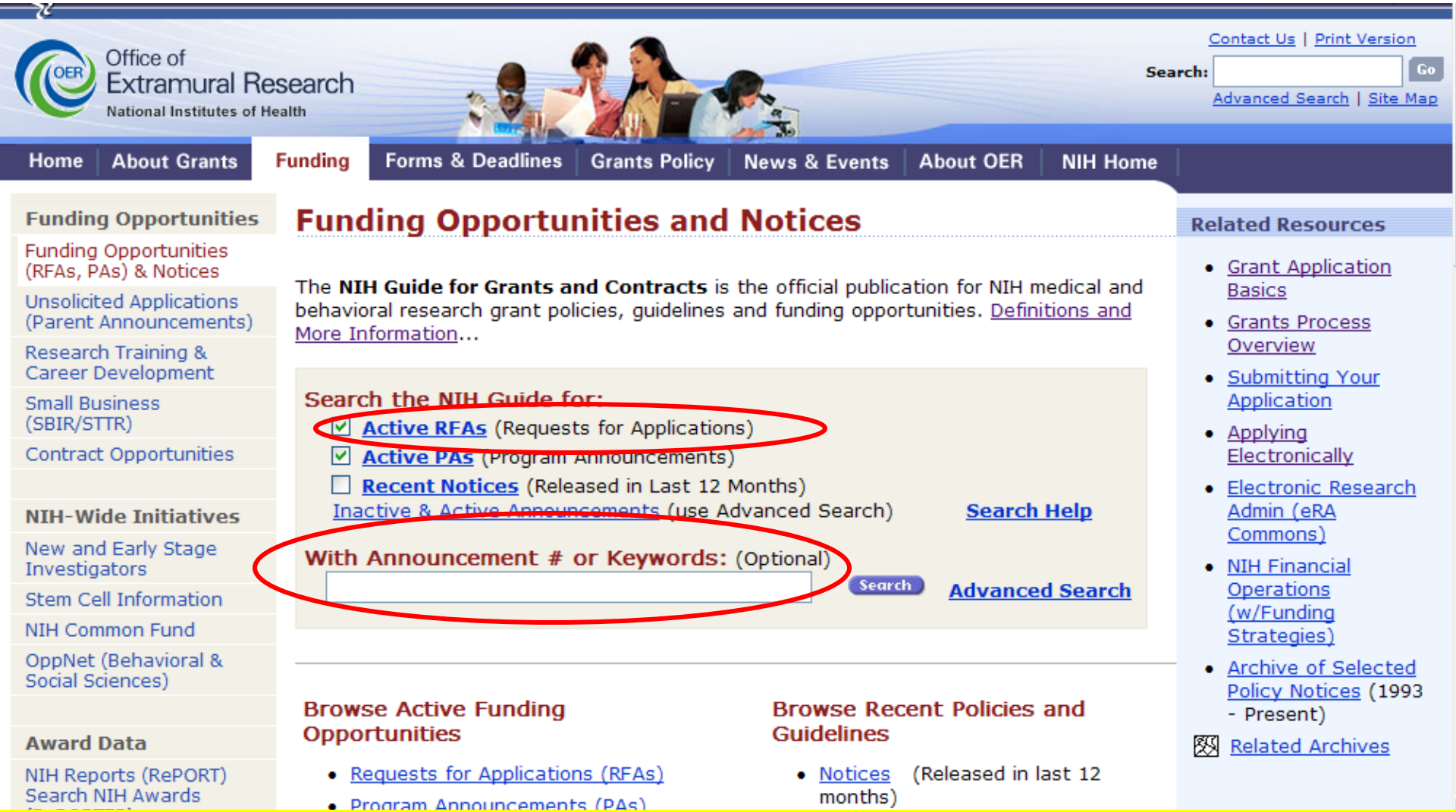
http://grants.nih.gov/grants/guide/index.html

# NIH GRANTS Support Science



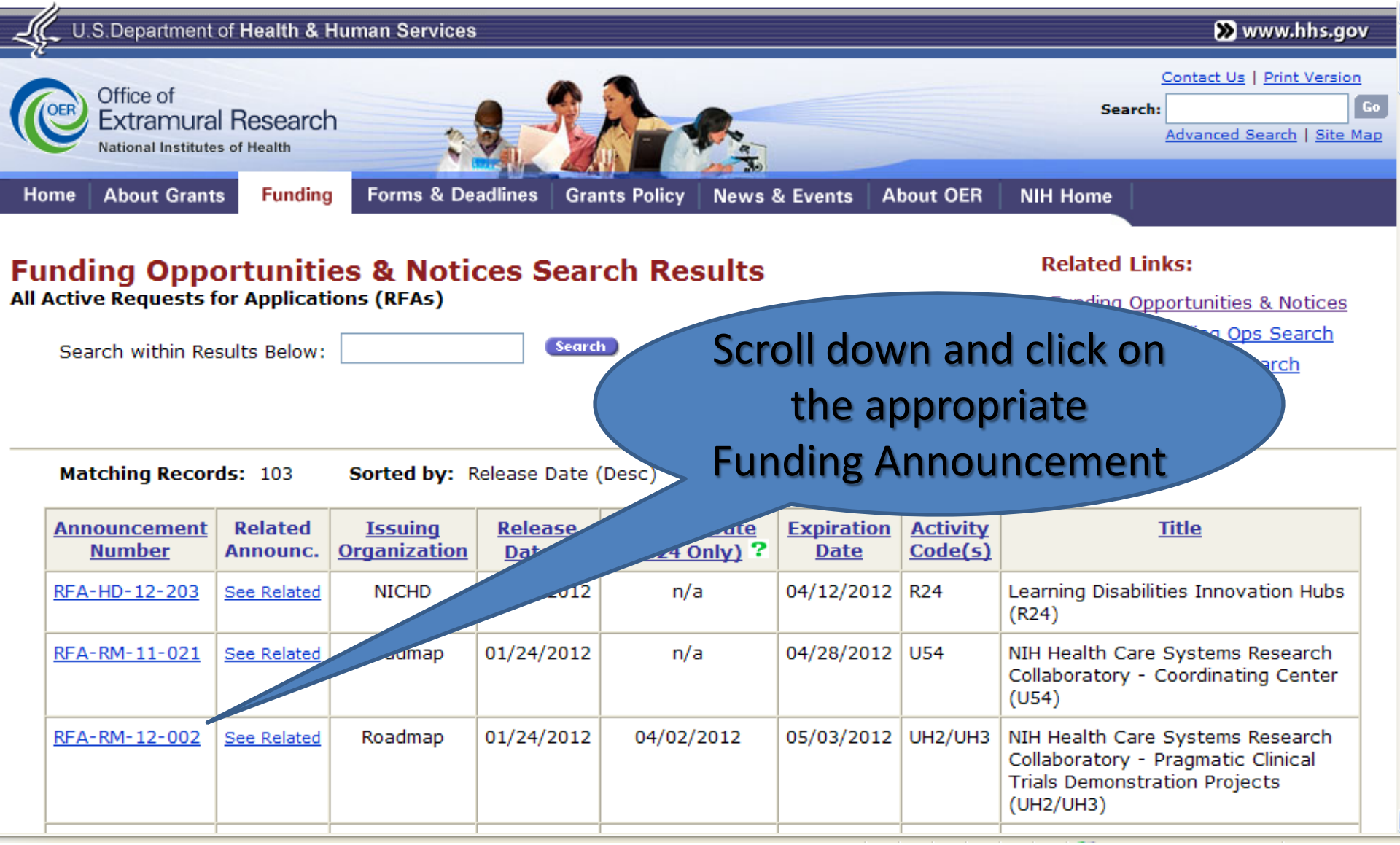

http://grants.nih.gov/grants/ElectronicReceipt/index.htm

# Follow the breadcrumbs…




http://grants.nih.gov/grants/guide/index.html

# List of Current Solicitations

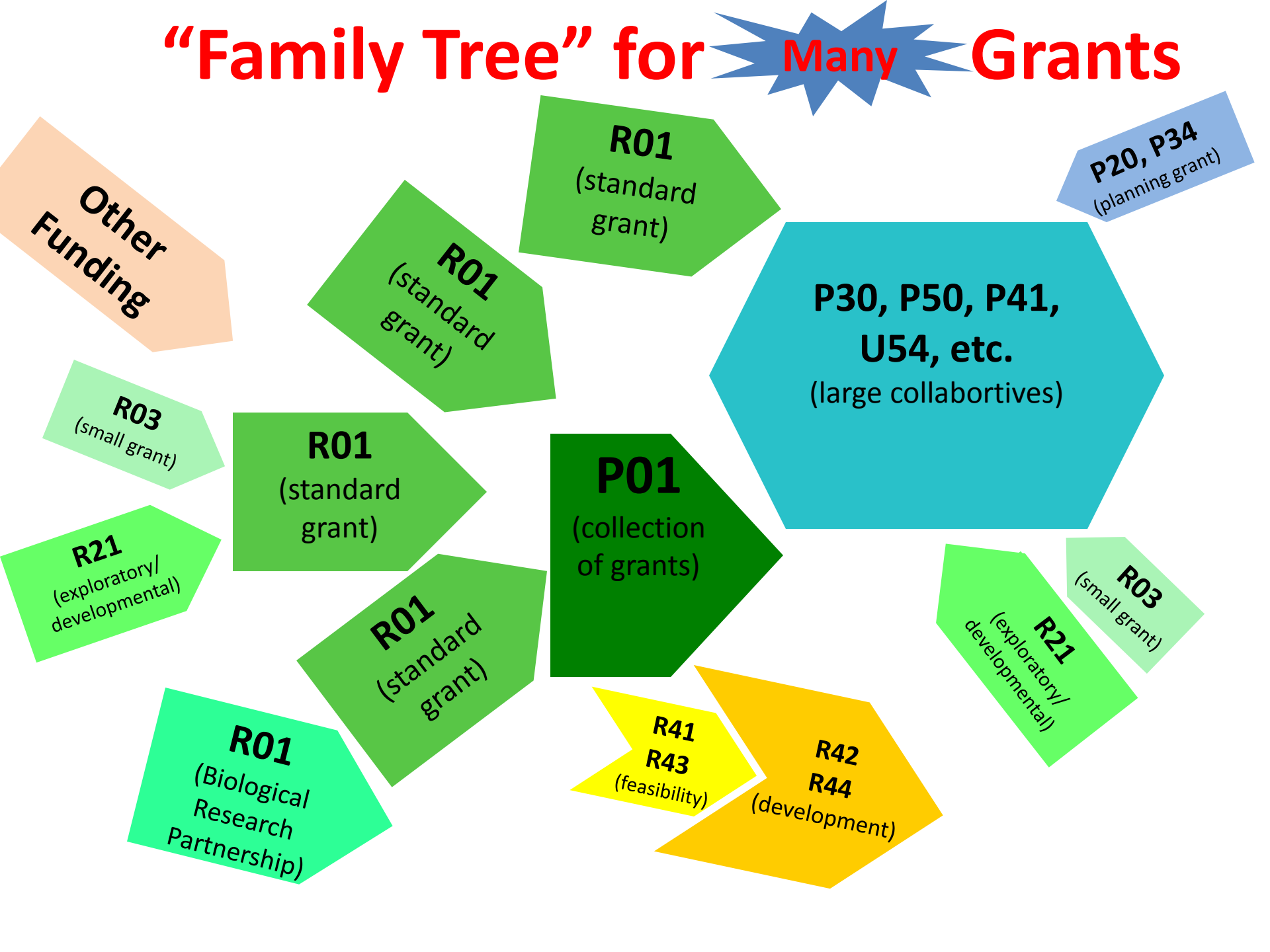


# All the Relevant Details are in the FOA and Associated Documents

## Department of Health and Human Services

## Part 1. Overview Information

| | |
|---|---|
| **Participating Organization (s)** | National Institutes of Health (NIH) |
| **Components of Participating Organizations** | This Funding Opportunity Announcement (FOA) is developed as a Common Fund initiative (http://commonfund.nih.gov/) through the NIH Office of the Director, Office of Strategic Coordination (http://dpcpsi.nih.gov/osc/). The FOA will be administered by a trans-NIH team led by the National Institute of Neurological Disorders and Stroke (NINDS) (http://www.ninds.nih.gov/) on behalf of the NIH Common Fund Program on Advancing Regulatory Science http://commonfund.nih.gov/regulatoryscience/. |
| **Funding Opportunity Title** | **Integrated Microphysiological Systems for Drug Efficacy and Toxicity Testing in Human Health and Disease (UH2/UH3)** |
| **Activity Code** | UH2/UH3 Phase Innovation Awards Cooperative Agreement |
| **Announcement Type** | New |
| **Related Notices** | U18, RFA-RM-12-001<br>• December 5, 2011 - See Notice NOT-RM-12-007. The National Institutes of Health (NIH) Common Fund (CF) Regulatory Science Microsystems Program Team will hold a pre-application teleconference. |
| **Funding Opportunity Announcement (FOA) Number** | **RFA-RM-11-022** |
| **Companion FOA** | None |
| **Number of Applications** | See Section III. 3. Additional Information on Eligibility. |
| **Catalog of Federal** | 93.310 |


"Family Tree" for Many Grants
Other Funding
R01 (standard grant)
R01 (standard grant)
P20, P34 (planning grant)
P30, P50, P41, U54, etc. (large collabortives)
R03 (small grant)
R01 (standard grant)
P01 (collection of grants)
R21 (exploratory/ developmental)
R01 (standard grant)
R03 (small grant)
R21 (exploratory/ developmental)
R01 (Biological Research Partnership)
R41 R43 (feasibility)
R42 R44 (development)

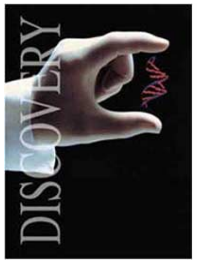
# Different Grants Serve Different Purposes

- **R01**
  - Workhorse of NIH research, highly valued by peers
  - An outline for rigorous investigation, provides new fulcrum for the field without gaps for others to fill
  - Based on solid preliminary data
  - 4-5 years, often renewable, generally $400-$500K per year

- **R03**
  - A “mini-R01” popular with new investigators
  - Self-contained: data analysis, pilots, methods development
  - $50K per year for two years
  - Not used by all institutes.

- **R21 (Exploratory/Developmental)**
  - Ideal = High Risk/High Reward ($HR^2$)
  - Innovation is a key, no preliminary “required”
  - $275K per year, typically 2 years, NOT renewable
  - Success = quantum leap requiring follow up (sometimes with an R33) and/or validation (i.e. an R01 submission)
  - NOT a “new investigator starter grant”!

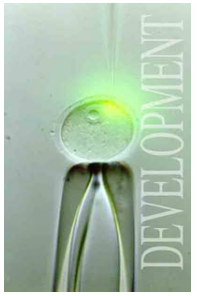
# Small Business Innovation Research (SBIR)
# Small Business Technology Transfer (STTR)
# Programs




## PHASE I – Feasibility Study

- Average award: $170K
- Project period varies, most 6 – 12 months

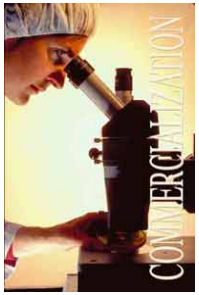
**R41 (STTR)**
**R43 (SBIR)**




## PHASE II – Full R&D

- Average $850K, 2 years but some longer
- Commercialization plan required

**R42 (STTR)**
**R44 (SBIR)**




## PHASE III – Commercialization

- Use of non-SBIR/STTR Funds
- Consider exit strategy

# Policies for New and Early Stage Investigators

- Payline for new and early stage investigators (NI/ESI) for R01 applications can be up to 5 percentile points beyond the regular Institute payline.
- One year of bridge funding for new investigators submitting the first R01 competitive renewal scoring close to the payline.

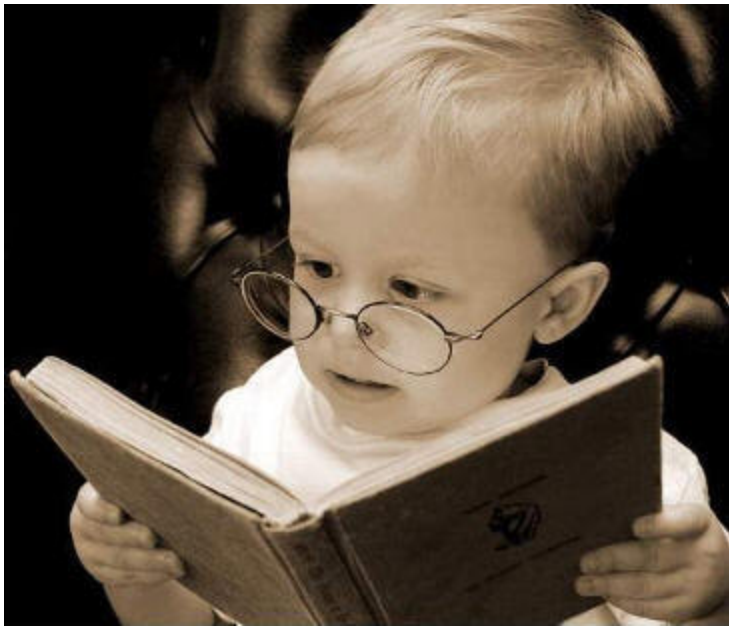
**New Investigator (NI)** – **Applicant has not previously been a PD/PI on a significant NIH independent research award.**

**Early-Stage Investigator (ESI) - New Investigator within 10 yrs of completing their terminal degree or medical residency.**

**Peer reviewers will focus more on the approach of early-stage investigators than their track record and expect less preliminary data**

# NIH Director's Early Independence Awards (DP5)

Exceptional junior scientists who will obtain their PhD within one year or who have obtained their PhD in the last year



- **Skip postdoctoral training**
- **Directly launch an independent research program**
- **Highly competitive (10 awards in Fall 2011)**

**This year's deadline: January 30, 2012**

http://grants.nih.gov/grants/guide/rfa-files/RFA-RM-11-007.html

# Pathway to Independence Program (K99/R00)

- ✓ US citizen/permanent residents or non-citizens on visas
- ✓ No more than 5 years of postdoctoral experience
- ✓ Must be in dependent position
- ✓ Standard application dates apply
- ✓ Trans-NIH (all ICs participate)

## K99 Dependent Phase

- 1-2 yrs mentored postdoctoral support
- $50K salary, $20K research costs + 8% F&A

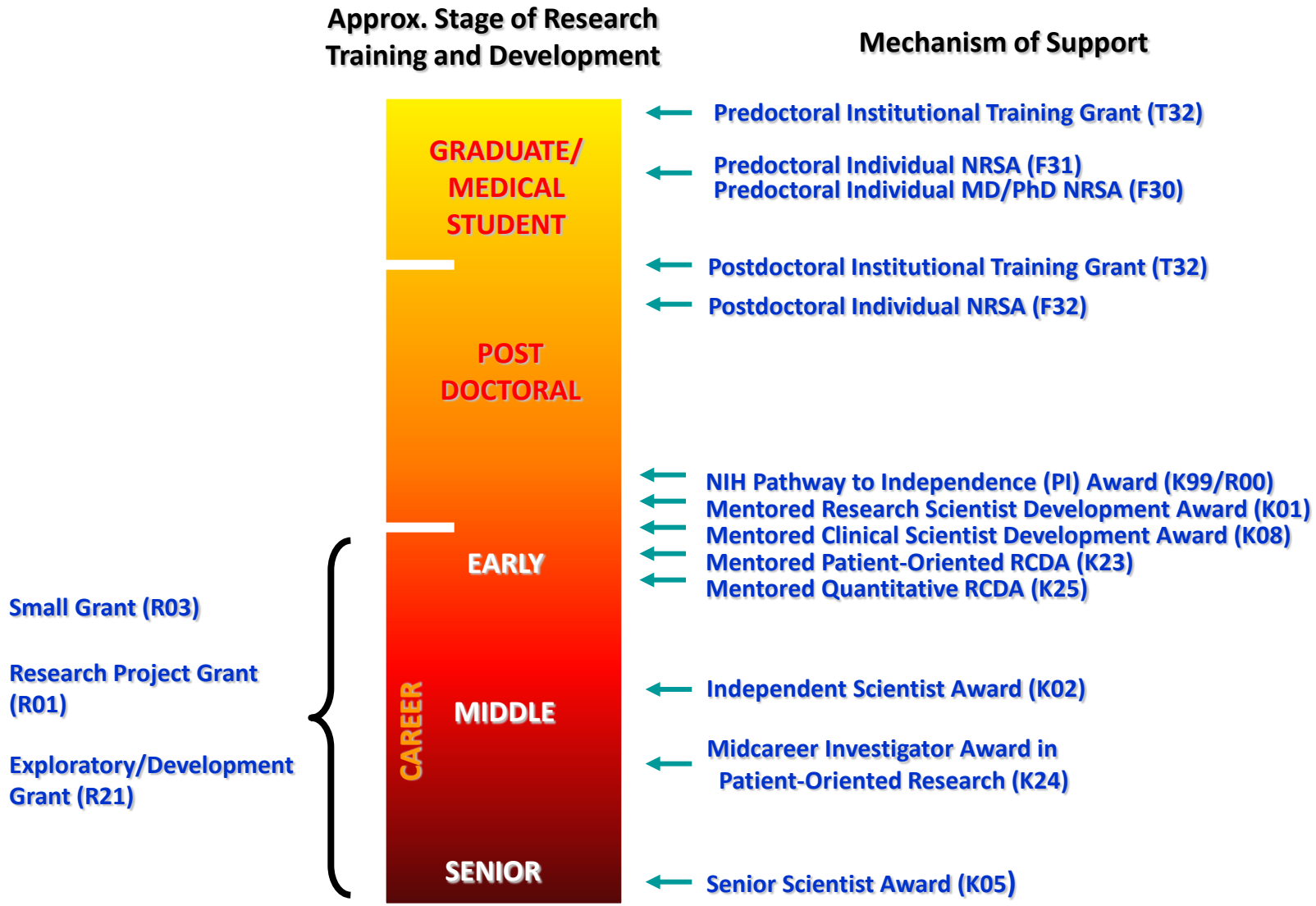
## R00 Independent Phase

- 3 yrs -- contingent upon securing an independent research/faculty position
- $249/yr total cost with full F&A

# Research Training and Career Awards

- **Training Grants – *T***
  - **Institutional**
  - **Predoctoral and Postdoctoral**
- **Fellowships – *F***
  - **Individual**
    - **Predoctoral – F31**
    - **Postdoctoral – F32**
- **Career Development Awards – *K***

# NIH Funding Supports Scientists at Every Career Stage



# Options for Career Development

http://grants.nih.gov/training/extramural.htm

# *Looking to the Future with the NIH Director*

National Institutes of Health

*The Nation's Medical Research Agency*

**Francis S. Collins, M.D., Ph.D.**

## Strategic Priorities

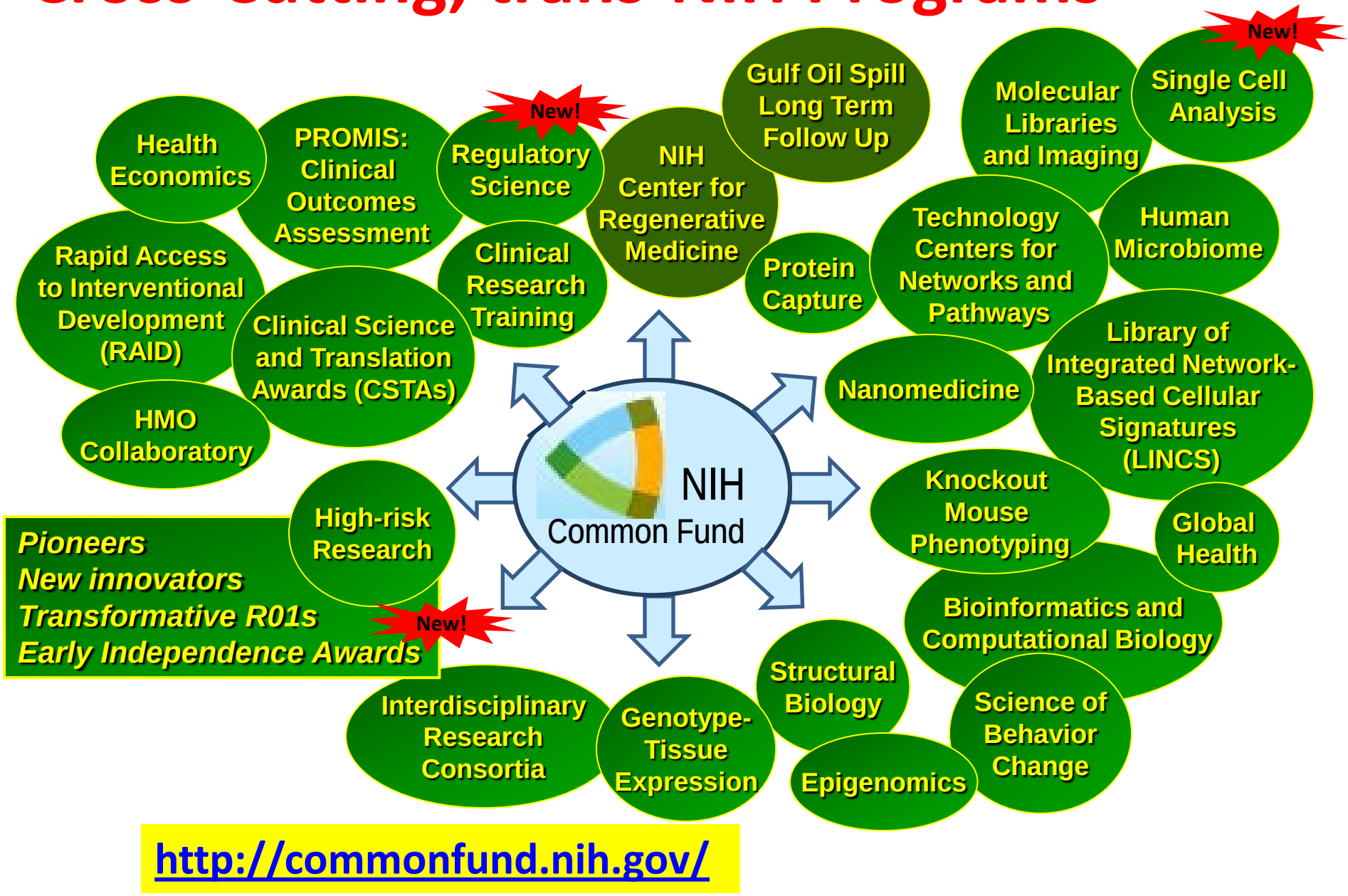
1. **High-throughput Technologies/Genomics**
2. **Translational Medicine**
3. **Science for Health Care Reform**
   - **Comparative Effectiveness Research**
   - **Prevention and Personalized Medicine**
4. **Global Health**
5. **Reinvigorating and Empowering the Biomedical Research Community**

NIBIB

*… improving health by leading the development and accelerating the application of biomedical technologies*

**We're not your grandfather's NIH!**

# Cross-Cutting, trans-NIH Programs




http://commonfund.nih.gov/

# Ongoing Investments in Innovation

The NIH Common Fund invests millions of dollars to fund new high-risk research to explore ideas that have strong potential to improve health

**Transformative R01** Program places the emphasis on creative ideas—projects with the potential to overturn paradigms. Flexible budgets. (79 awards since 2009).

stresses projects

**Pioneer Awards** support individual scientists of exceptional creativity who propose pioneering approaches to major challenges in biomedical and behavioral research (111 awards since 2004).

**New Innovator** Program address two important goals: stimulating highly innovative research and supporting promising new investigators (214 awards since 2007).

stresses individuals

**Early Independence** Program supports individuals with the intellect, scientific creativity, drive and maturity to flourish independently without the need for traditional post-doctoral training. (10 awards in 2011).

http://nihroadmap.nih.gov/

# NIH and Non-Hypothesis Driven Research

There are two kinds of scientific revolutions, those driven by new tools and those driven by new concepts… The effect of a concept-driven revolution is to explain old things in new ways. The effect of a tool-driven revolution is to discover new things that have to be explained.

-Freeman Dyson, 1997

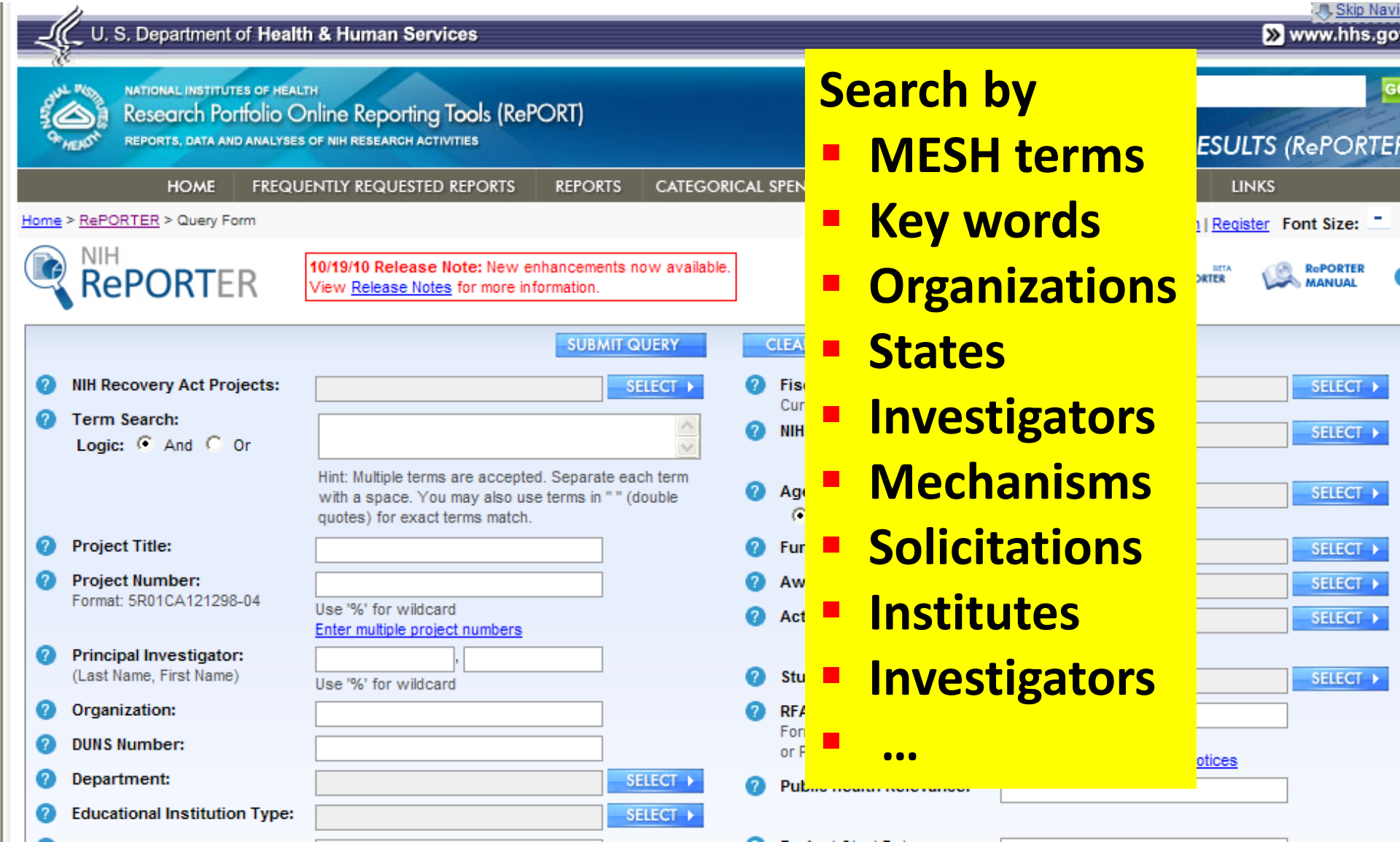
# Resources

- Is NIH interested in my science?
- Finding the Best Review Committee
- The Right Help at the Right Time

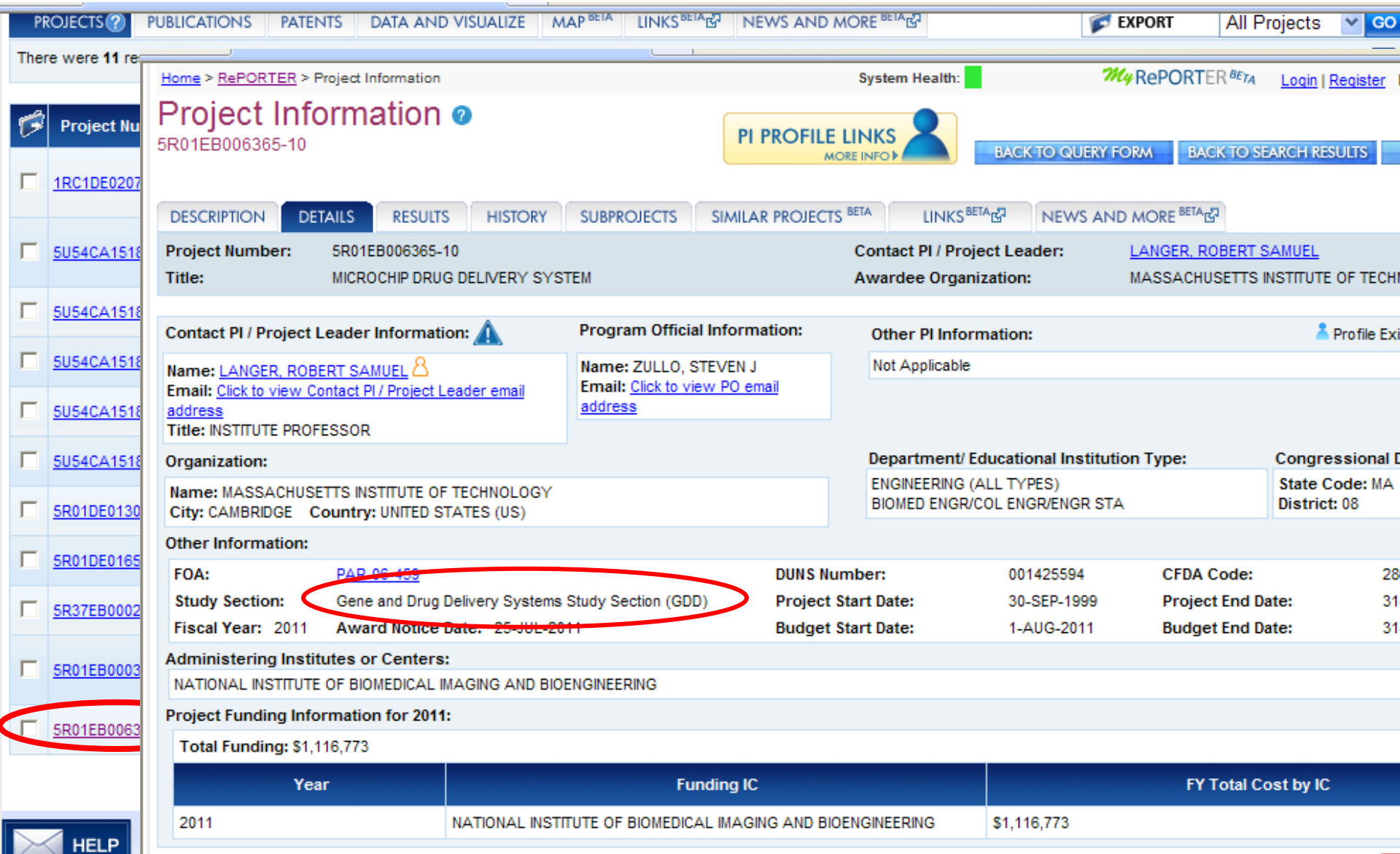
# What Does NIH Already Support in My Interest Area?

http://report.nih.gov/index.aspx

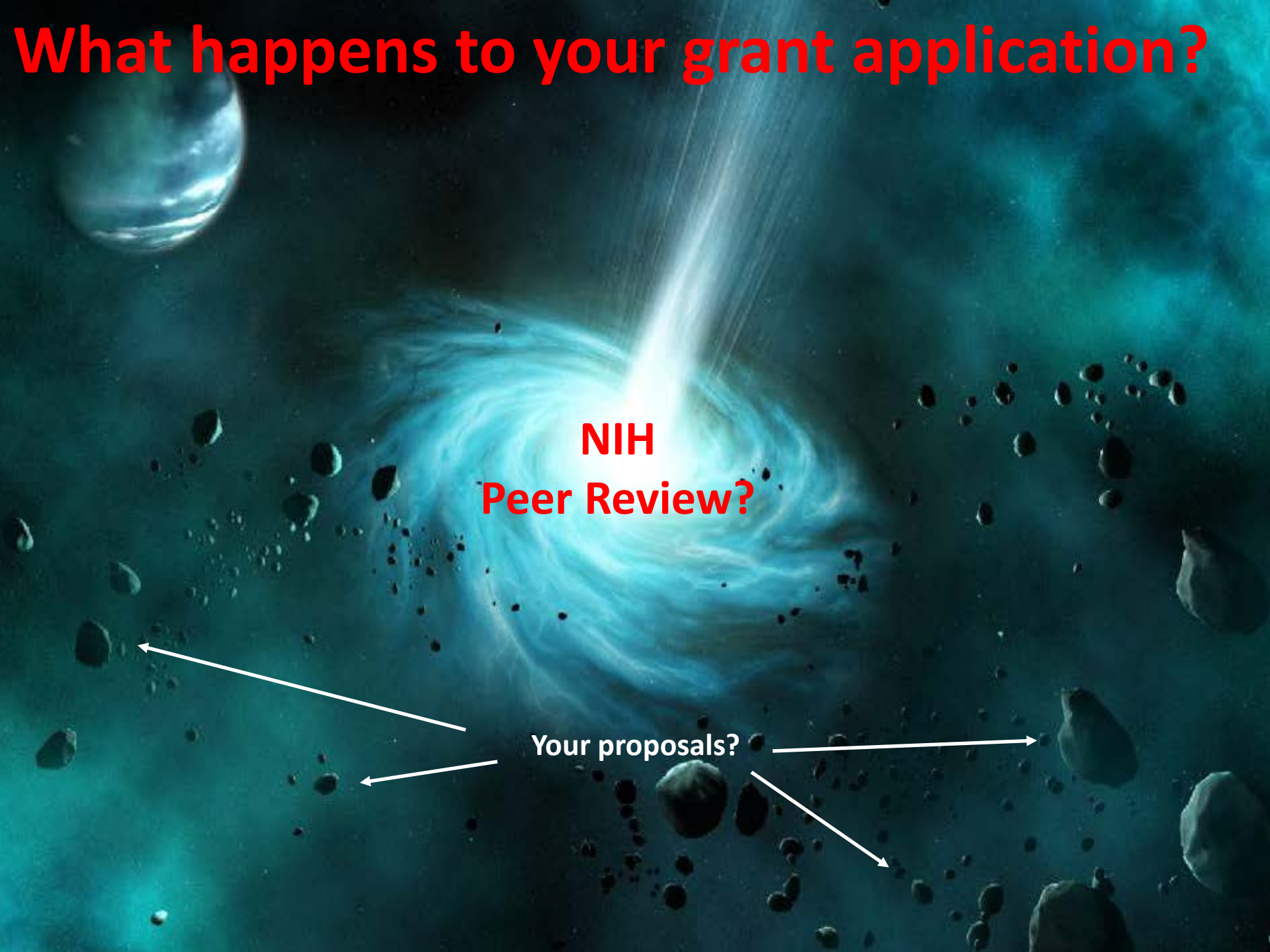
# NIH Searchable Databases Contain Abstracts of All Funded Projects



# RePORTer Delivers a Treasure Trove of Information…



# What happens to your grant application?



# It's an orderly universe.
# Your application is reviewed by either …

- Chartered (Standing) Scientific Review Group (SRG), or "Study Section"
- Special Emphasis Panel (SEP)
  - organized by the Center for Scientific Review (CSR)
    - Conflicts on the panel (e.g. reviewer is a PI on the grant application)
    - Special review for a unique solicitation (e.g. PAR)
  - convened within a home IC of a highly specific initiative (e.g. RFA)

# Peer Review and You

U.S.Department of Health & Human Services www.hhs.gov

Office of Extramural Research
National Institutes of Health

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Home | About Grants | Funding | Forms & Deadlines | Grants Policy | News & Events | About OER | NIH Home

**Grants Policy**
- Policy & Guidance
- Compliance & Oversight
- Research Involving Human Subjects
- Office of Laboratory Animal Welfare (OLAW)
- Animals in Research
- Peer Review Policies & Practices
- Intellectual Property Policy
- Invention Reporting (iEdison)
- NIH Public Access
- Research Integrity

**Global OER Resources**
- Glossary & Acronyms
- Frequently Used Links
- Frequently Asked Questions

## Peer Review Policies & Practices

**On This Page:**
- What's New in Peer Review
- Information for Reviewers
- Peer Review Practices and Policies
- Peer Review Archive

### Overview of Peer Review Process

- This page provides detailed information about Peer Review Policies and Practices. For an overview of general information about Peer Review, visit Peer Review Process.

### What's New in Peer Review

- NOT-OD-11-101 Resubmission of Applications with Pending Appeals of NIH Initial Peer Review
- NOT-OD-11-064 Appeals of NIH Initial Peer Review
- NOT-OD-11-047 Notice of Change in Policy on the Submission of Reference Forms for Kirschstein-NRSA Fellowships
- NOT-OD-11-035 NIH Policy on Late Submission of Grant Applications
- NOT-OD-11-023 Reminder of Policies Affecting Submission of NIH Grant Applications

**Related Resources**

Related Archives
- NIH Peer Review Policie and Practices (NIH Staf Only)
- Rosters of NIH Scientific Review Groups
- Office of Federal Advisory Committee Policy
  - Meeting Schedule fo all Advisory Councils
  - More Information about each Council available on IC websites
- Enhancing Peer Review
- Peer Review Advisory Council (PRAC)
- Peer Review Notes

http://grants.nih.gov/grants/peer/peer.htm

# Your application may be reviewed by one of:

**Bioengineering Sciences and Technology (BST)**
BDMA, BMBI, GDD, ISD, MABS, NANO

**Vascular and Hematology (VH)**
AICS, ELB, HM, HP, MCH, VCMB

**Molecular, Cellular and Developmental Neuroscience (MDCN)**
BPNS, CMBG, CMND, DDNS, MNPS, NCF, NDPR, NOMD, NTRC, SYN

**AIDS and AIDS Related Research (AARR)**
ACE, ADDT, AIP, AMCB, AOIC, BSCH, BSPH, NAED, VACC

**Behavior and Behavioral Processes (BBBP)**
APDA, BRLE, CP, CPDD, LCOM, MESH, MFSR

**Healthcare Delivery and Methodologies (HDM)**
BCHI, BMRD, CIHB, CLHP, DIRH, HDEP, HSOD, NRCS, SEIR

**Cell Biology (CB)**
BVS, NCSD, CMAD, CSRS, DEV1/2, ICI, MBPP, MIST

**Cardiovascular and Respiratory Sciences (CVRS)**
CCHF, CDD, CICS, ESTA, LCMI, LIRR, MIM, RIBT, F10A/B

**>200 Standing Scientific Review Groups (SRGs or Study Sections) housed in 24 Integrated Review Groups at CSR**

**Surgical Sciences and Biomedical Imaging and Bioengineering (SBIB)**
BMIT-A/B, BTSS, CMIP, MEDI, SAT, F15, various SEPs

**Brain Disorders and Clinical Neuroscience (BDCN)**
ANIE, ASG, BINP, CDIN, CNBT, CNN, CNNT, DBD, DPVS, NPAS, PMDA

**Endocrinology, Metabolism, Nutrition and Reproductive Systems (EMNR)**
MCE, ICER, CMIR, PN, CADO, IPOD, CIDO, INMP

**Biological Chemistry and Molecular Biophysics (BCMB)**
BBM, MSFA/B/D/C/E, SBCA/B

**Immunology (IMM)**
CMIA/B, HAI, IHD, III, IMM-M, TTT, VMD

**Musculoskeletal Oral and Skin Diseases (MOSS)**
ACTS, MRS, MTE, ODCS, SBDD, SBSR, SMEP

**Risk Prevention and Health Behavior (RPHB)**
BMIO, PDRP, PRDP, RPIA, SPIP

**Genes, Genomes and Genetics (GGG)**
MGA/B, GCAT, GVE, GHS, PCMB, TAG

**Interdisciplinary Medical Sciences and Training (IMST)**
various SEP and training, EBIT

**Digestive, Kidney and Urological Systems (DKUS)**
CIMG, KMBD, GMPB, HBPP, KMBD, PBKD, XNDA, UGPP

**Oncology 1 – Basic Translational (OBT)**
CAMP, CE, CG, MONC, TCB, TME, TPM

**Infectious Diseases and Microbiology (IDM)**
BACP, CRFS, DDR, HIBP, PTHE, PTHE, VB, VIRA/B

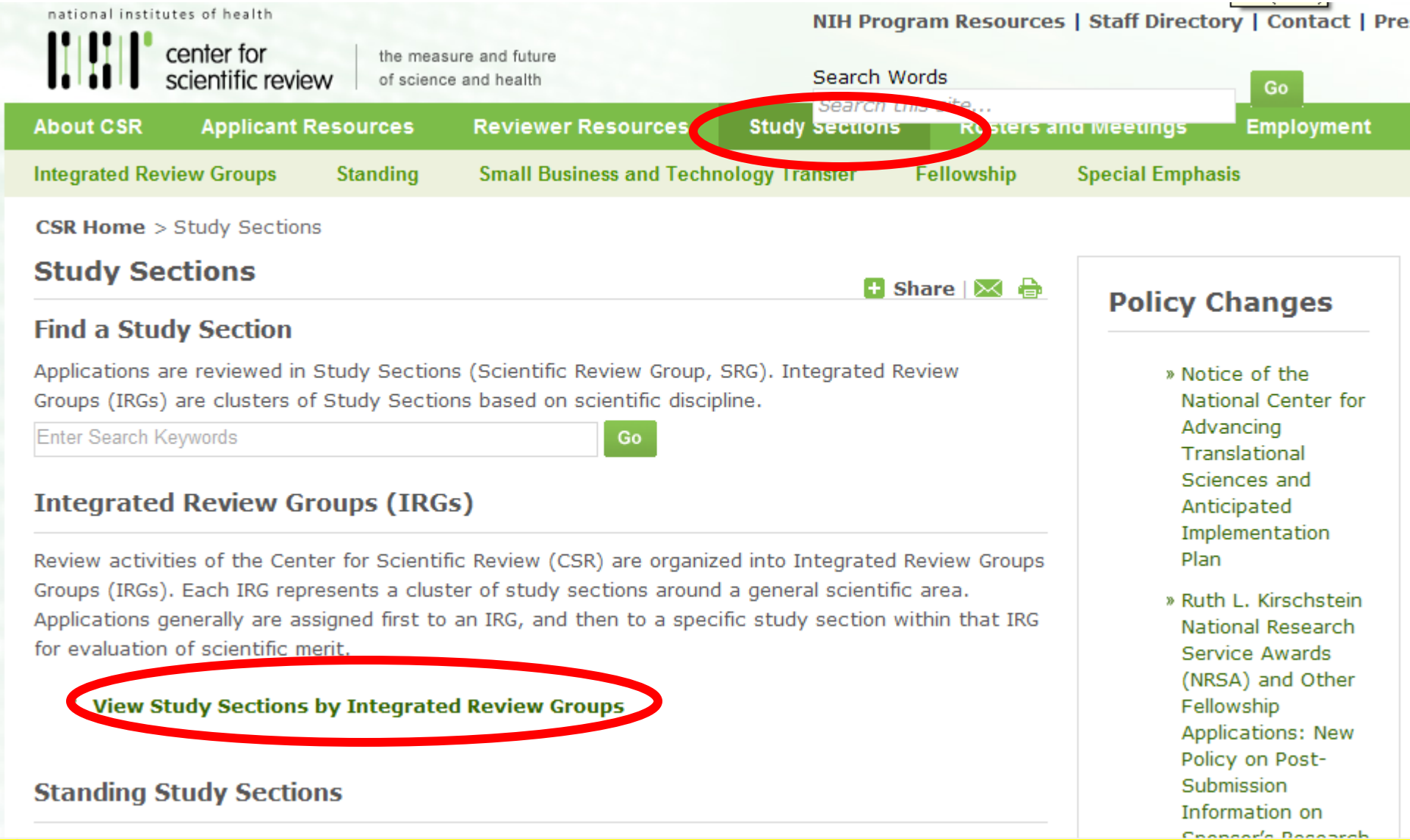
**Oncology 2 – Translational and Clinical (OTC)**
BMCT, CBSS, CDP, CII, CONC, DMP, DT, RTB, various SEPs

**Emerging Technologies and Training in Neuroscience (ETTN)**
MNG, NT, F01/2/3, several SEPs

**Integrative, Functional and Cognitive Neuroscience (IFCN)**
AUD, CFS, LAM, NAL, NMB, NNRS, SCS, SMI, SPC

**Population Science and Epidemiology (PSE)**
BGES, CASE, EPIC, IRAP, KNOD, NAME, SSPS

# How to Identify the Best Study Section




http://public.csr.nih.gov/StudySections/Pages/default.aspx

# Integrated Review Groups

Review Groups Applicat IRG for A list of IRG and descript groups) the revi the NIH

Click on Scientif http://

The stu few Res

## CSR Integrated Review Groups

AIDS and Related Research IRG [AARR]
Biobehavioral and Behavioral Processes IRG [BBBP]
Biological Chemistry and Macromolecular Biophysics IRG [BCMB]
Biology of Development and Aging IRG [BDA]
Brain Disorders and Clinical Neurosciences IRG [BDCN]
Bioengineering Sciences and Technologies IRG [BST]
Cell Biology IRG [CB]
Cardiovascular and Respiratory Sciences IRG [CVRS]
Digestive, Kidney and Urological Systems IRG [DKUS]
Emerging Technologies and Training Neurosciences IRG [ETTN]
Endocrinology, Metabolism, Nutrition and Reproductive Sciences IRG [EMNR]
Genes, Genomes, and Genetics IRG [GGG]
Healthcare Delivery and Methodologies IRG [HDM]
Infectious Diseases and Microbiology IRG [IDM]
Integrative, Functional and Cognitive Neuroscience IRG [IFCN]
Immunology IRG [IMM]
Interdisciplinary Molecular Sciences and Training IRG [IMST]

» NIH Researc Involving Chimpanzee
» New Dates Investigato R01 Applica Submitted f Standard Da
» More ...

## FAQ's

» For Applica
» For Reviewe
» More ...

## Scientific Areas of Integrated Review Groups (IRGs)

For a listing of the Scientific Review Officer and membership roster for each study section, click on the study section roster under the study section name within an IRG listed below or go to the study section index (study sections listed alphabetically) and click on the specified roster next to the name of the study section.

## Bioengineering Sciences and Technologies IRG [BST]

Printer Friendly (Complete IRG)

The Bioengineering Sciences and Technologies [BST] IRG reviews grant applications that focus on fundamental aspects of bioengineering and technology development in the following areas: gene and drug delivery systems, imaging principles for molecules and cells, modeling of biological systems, bioinformatics and computer science, statistics and data management, instrumentation, chips and microarrays, biosensors, and biomaterials. Biological context is important in bioengineering, and a central premise in organization of this IRG is the need for effective review of bioengineering and technology development in early stages before specific practical uses are proven.

Research grants (R01, R21, R15, etc.), Program Project and Center Grants (P01, P41 etc.), and Cooperative Agreements (U01, U54 etc.) are reviewed in the BST IRG.

**The following study sections are included within the BST IRG:**

- Instrumentation and Systems Development Study Section [ISD]
- Gene and Drug Delivery Systems Study Section [GDD]
- Biomaterials and Biointerfaces Study Section [BMBI]

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# Biomaterials and Biointerfaces Study Section [BMBI]

**Review Group Description: What is the science focus?**

[BMBI Membership Roster] [BMBI Meeting Rosters]

printer friendly

The Biomaterials and Biointerfaces Study Section (BMBI) reviews applications concerned with biologically relevant research in materials science and the interaction of materials surfaces with biological systems. Applications driven by bioengineering principles are typical. Areas of interest include the theory, principles, design and synthesis of biomaterials as well as characterization of new or existing materials. BMBI has related interests in the interactions of biomaterials with proteins, membranes, cells, and tissues.
Specific areas covered by BMBI are:

- Development and characterization of biomaterials; Self-assembled materials; Design principles, material processing, and combinatorial approaches to the synthesis of new biomaterials; Biocompatibility, toxicity, structure/property relationships, and biodurability.
- New biomaterials and fabrication techniques for tissue engineering, transport and perfusion aspects of tissue engineering, and bioreactors.
- Molecular/cellular interfacial interactions; Non-fouling and bioactive surfaces; Improved understanding of the biology-biomaterials interface; Biosurface characterization and techn… characterization at the nano-scale.
- Chip- and micro-array-based microtechnologies and biosensors, w… biocompatibility, nonfouling surfaces, and fouling mechanisms; Incl… systems), lithographic and microfluidic elements.
- Drug and gene delivery systems and nanoparticles, with a focus on the ca… erial, fabrication, biocompatibility, and toxicity.

**Science Focus of "nearest neighbor" study sections**

**Study sections with most closely related areas of similar science listed in rank order are:**

Gene and Drug Delivery Systems (GDD)
Nanotechnology (NANO)
Bioengineering, Technology, and Surgical Sciences (BTSS)
Enabling Bioanalytical and Biophysical Technologies (EBT)
Instrumentation and Systems Development (ISD)

Revised 12/6/2010

# Cover Letters Help Target Your Review

## Applicants can suggest

- **Review Group assignment**
- **Expertise necessary for a full and fair review**
- **Primary (and secondary) Institute or Center (IC) assignment**
- **Reviewers with potential conflicts**
- **Do not suggest possible reviewers, they will be disqualified.**

### Other Important Information

- Reasons for a late submission
- Note eligibility for continuous submission
- Highlight this application as one of a set, if applicable
- Acknowledge NIH approval for acceptance of
  - A budget >$500K/yr
  - Conference grant

**Suggested format and other information at**

**http://cms.csr.nih.gov/ResourcesforApplicants/CoverLet.htm**

# YouTube NIH Peer Review Revealed…

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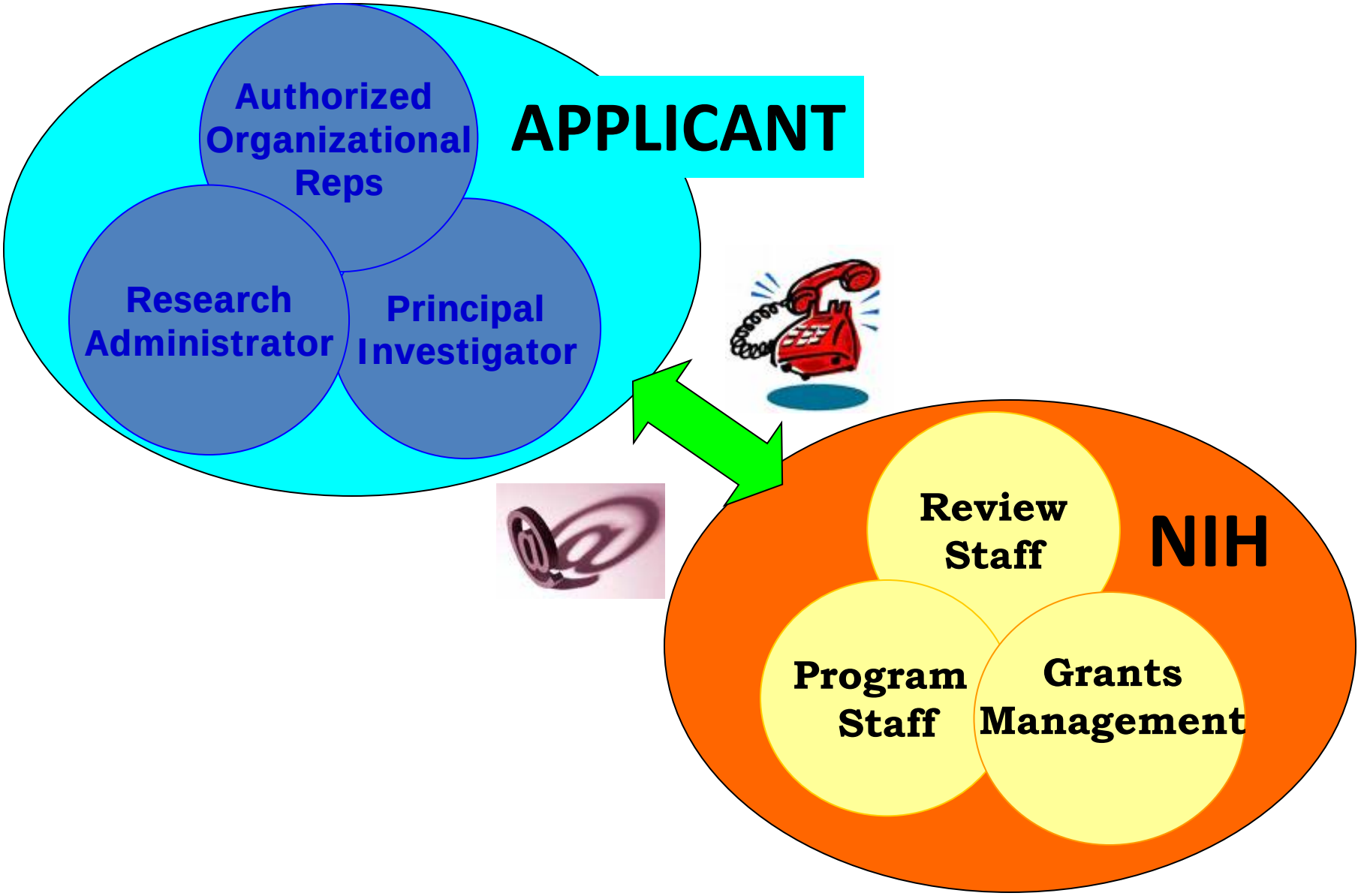
http://cms.csr.nih.gov/ResourcesforApplicants/InsidetheNIHGrantReviewProcessVideo.htm

**Applicant's Vision of NIH Dealing with Grant Proposals…**

**Your mission:**
**Find a Trusted Guide!**

# Communication is Key



# Need Help with Your Proposal… Who Ya' Gonna' Call?

✓ **about the scientific and technical aspects of your application…**

- Find them on the solicitation
- See also the IC's programmatic descriptions (http://www.nih.gov/icd/index.html).

✓ **for questions during the review…**

- Listed on the eRA Commons link to your submitted proposal
- See also the review group rosters at the CSR web site

✓ **for help with the business aspects of a proposal…**

- Listed on the eRA Commons link to your submitted proposal
- See also the IC's programmatic descriptions (http://www.nih.gov/icd/index.html).

**Program Director** | **Scientific Review Officer** | **Grants Specialist**

# Program Officials are your friends!

## Pre-Application

- Assess the “fit” to the IC, Program(s)
- Start the conversation early: develop your ideas together
- Choose the right activity/mechanism
- Brief on Review Issues: Dos/Don’ts

## Post Review

- Analyze the Summary Statement: deeper insights from the Review
- Understand the rating and assess the likelihood of funding
- BEWARE! Nothing is certain until you have it in writing

## During the Award

- Discuss problems in execution (rebudeting, rescoping, extensions…)
- Find an administrator to address unusual issues
- Brag about important discoveries

## Anytime

- Arrange introductions so you can serve on advisory boards workshop panels, etc. to help set the research agenda
- Discover what’s New and Coming Soon in Funding Opportunities

Application → Review → Award

# NIH Institute/Center Web Sites

www.nih.gov/icd/index.html

# *Each NIH* Institute/ Center *has a HOME PAGE*

Model: http://www.xxxxx.nih.gov

http://www.nibib.nih.gov/

NIBIB National Institute of Biomedical Imaging and Bioengineering
National Institutes of Health
ENGINEERING & IMAGING FOR THE FUTURE

En Español | Quick Links

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Scientific Program Areas (Extramural)

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Quantum Grants

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# Biomaterials Program Area

## Staff Contact

Rosemarie Hunziker, Ph.D.

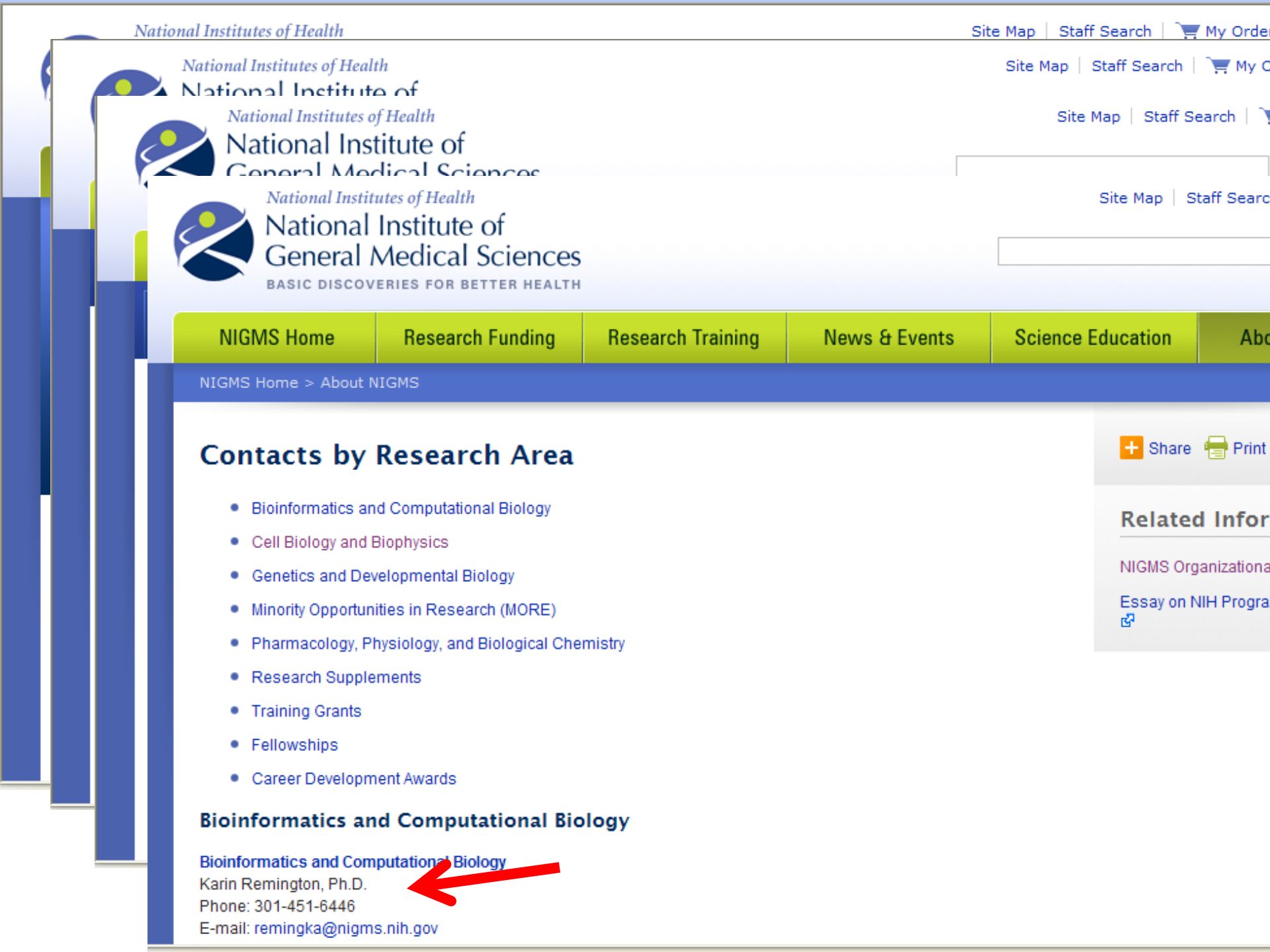
## Description

This program supports the research and development of new or novel biomaterials that can be us for a broad spectrum of biomedical applications such as implantable devices; tissue engineering imaging agents; and biosensors and actuators.

Research that is supported includes the design, synthesis, characterization, processing and manufacturing of these materials as well as the design and development of devices constructed o these materials and their clinical performance.

## Relevant Study Sections

Biomaterials and Biointerfaces (BMBI)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Pharmacology, Physiology, and Biological Chemistry
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Fellowships
Career Development Awards
Bioinformatics and Computational Biology
Bioinformatics and Computational Biology
Karin Remington, Ph.D.
Phone: 301-451-6446
E-mail: remingka@nigms.nih.gov
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# Getting to the Top: Writing Great Grants

- Components of successful applications
  - Strong Idea
  - Strong Science
  - Strong Team
  - Strong Presentation

- Match idea/science to the right NIH Institute
  - Every IC has specific mission
- Hone high-quality grant writing skills
  - Articulate the need to capture the opportunity
  - Communicate scientific content compellingly
  - Follow all the instructions

# *Take Home Messages*

## Lots of directions and opportunities at the NIH

- **Monitor Institute websites and the NIH Guide** (http://grants.nih.gov/grants/guide/)
- **Get to know the Program Director(s) for your scientific area and discuss your ideas**
  - Fit with institute mission and priorities
  - Best grant mechanism or program
  - Best study section for review
- **Participate in workshops and symposia**
  - Get fresh ideas and directions for your research
  - Become known to your peers (i.e. reviewers)
- **Participate in review of grant applications (serve on study sections)**

# Path to Success at NIH

**Step #1: Do your homework; learn a bit about the grant process and the options.**

**Office of Extramural Research:**

**Basics -** http://grants.nih.gov/grants/grant_basics.htm

**Overview -** http://grants.nih.gov/grants/grants_process.htm

**IC priorities:** http://www.nih.gov/icd/index.html

**NIH Guide Provides Weekly Updates on Funding Opportunities:**

http://grants.nih.gov/grants/guide/

**NIH RePORTer – lots of statistics and abstracts of funded grants**

http://report.nih.gov/

**Step #2: Contact us because… We're from the Government, we're here to help you!**

Do science because you can't imagine doing anything else, and enjoy the ride. No one said it would be easy, only wild.
- Doug Green

Are you ready to run with the big dogs?

# Rosemarie Hunziker, PhD


**Program Director, Tissue Engineering/Regenerative Medicine, Biomaterials and Medical Devices**
**National Institute of Biomedical Imaging and Bioengineering (NIBIB)**
**National Institutes of Health (NIH)**

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**www.nibib.nih.gov**